

AF13726

HDP/SB/21 based on PTO/SB/21 (08-00)

Please type a plus sign (+) inside this box → ☐

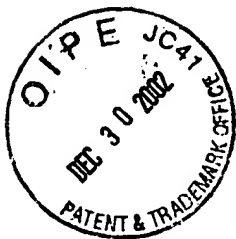
TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>	Application Number	09/862,688	
	Filing Dat	May 22, 2001	
	First Named Inv ntor	D. Mauer et al.	
	Group Art Unit	3726	
	Examiner Name	E. Omgba	
Total Number of Pages in This Submission		Attorney Docket Number	0275M-000260/DVB

RECEIVED
JAN 03 2003
TECHNOLOGY CENTER R3700

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input checked="" type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Declaration of Ralf England
Remarks		The Commissioner is hereby authorized to charge any additional fees that may be required under 37 CFR 1.16 or 1.17 to Deposit Account No.02-2550.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm or Individual name	Harness, Dickey & Pierce, P.L.C.	Attorney Name Monte L. Falcoff	Reg. No. 37,617
Signature			
Date	December 12, 2002		

CERTIFICATE OF MAILING/TRANSMISSION			
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, or facsimile transmitted to the U.S. Patent and Trademark Office on the date indicated below.			
Typed or printed name	Monte L. Falcoff		
Signature		Date	December 12, 2002



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 09/862,688
Filing Date: May 22, 2001
Applicant: D. Mauer et al.
Group Art Unit: 3726
Examiner: E. Omgba
Title: RIVETING SYSTEM AND PROCESS FOR
FORMING A RIVETED JOINT
Attorney Docket: 0275M-000260/DVB

#16
PATENT
3rd appeal
Declaration
1-1303
N. Chapman
RECEIVED
JAN 08 2003
TECHNOLOGY CENTER R8700

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

SUPPLEMENT TO APPEAL BRIEF

The concurrently filed Declaration of Ralf England is intended to supplement the Appeal Brief filed on December 10, 2002. This declaration more specifically addresses the issues raised by the Examiner for the first time in the Final Office Action, without admitting that such issues have merit.

The Declaration of Ralf England further supports nonobviousness of the claimed invention by demonstrating commercial success with a strong nexus to the technical merit. Many of the SPR machines were shipped within the past few months, thus explaining the delay in presenting this Declaration.

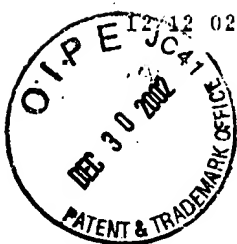
Respectfully submitted,

Dated: Dec. 12, 2002

By: [Signature]

Monte L. Falcoff
Reg. No. 37,617

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED
JAN 08 2003
TECHNOLOGY CENTER R3700

Group Art Unit: 3726)
Examiner: E. Omgba)
Inventor: D. Mauer et al.)
Serial No: 09/862,688)
Filed: May 22, 2001)
For: RIVETING SYSTEM AND)
PROCESS FOR FORMING A)
RIVETED JOINT)

**DECLARATION OF
RALF ENGLAND**

I, Ralf England, hereby declare the following to be true and accurate, to the best of my personal knowledge:

1. I am a Product Manager for the self piercing rivet ("SPR") product line for Emhart Tucker in Germany. I am employed by Emhart Tucker which is a related company to the owner of the above identified patent application. I can understand, read and write English.

2. Emhart Tucker has now sold approximately one hundred fifty (150) SPR machines to AUDI.

3. Emhart Tucker has now sold approximately ninety (90) SPR machines to BMW; the order for which was only recently completed within the past few months.

4. Each of the Emhart Tucker SPR machines sold to Audi and BMW has a selling price of at least fifty five thousand (55,000) Euros.

5. Each of the Emhart Tucker SPR machines sold to Audi and BMW employs the items listed in the attached claims which I understand are pending in the above identified U.S.-patent application.


6. It is my understanding upon information and belief, from conversations I personally had with Audi and BMW employees, that Audi and BMW purchased these Emhart Tucker SPR machines primarily based on their technical merit, for example due to essentially the mechanical and control system features noted in the attached claims (which lead to quality, durability and other functional advantages), rather than due to sales, marketing, advertising or price considerations.

7. It is my opinion upon information and belief, that Emhart Tucker has received significant commercial success for its electric motor driven, rotary-to-linear rivet machines, especially considering its fairly recent introduction by Emhart Tucker to customers since approximately 1998 or 1999. It is also my opinion upon information and belief that Emhart Tucker is one of at least three significant suppliers of SPR style machines in Europe to the automotive industry.

8. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief or upon my understanding are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under

Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 12.12.02



Ralf England

U.S. Patent Ser. No. 09/862,688
0275M-000260/dvb

INDEPENDENT CLAIMS FROM U.S. PATENT SER. NO. 09/862,688

1. An electronic control system for use in a riveting process,
the system comprising:

an electronic control unit;

an electric motor connected to the electronic control unit;

a first sensor connected to the electronic control unit and the
electric motor, the first sensor being operable to indicate at least one of: (a)
torque of the electric motor, (b) speed of the electric motor, and (c) an
electrical power characteristic of the electric motor; and

a second sensor connected to the electronic control unit, the
second sensor operably detecting a riveting characteristic occurring during the
riveting process, the riveting characteristic consisting essentially of at least
one of: (a) riveting force, (b) rivet punch assembly location, (c) rivet size, and
(d) workpiece thickness.

12. A riveting electrical control system comprising:

(a) an electrical control unit;

(b) an electric motor connected to the electrical control unit;

(c) a transmission operably driven by energization of the
electric motor;

(d) a riveting punch operably advanced by the transmission;

and

(e) a sensor connected to the electrical control unit, the sensor being operable to sense riveting force.

22. A riveting electrical control system comprising:

(a) an electrical control unit;

(b) an electric motor connected to the electrical control unit;

(c) a transmission operably driven by energization of the electric motor, the transmission operably converting rotational movement of the electric motor to substantially linear movement;

(d) a riveting punch operably advanced in a substantially linear direction by the transmission;

(e) a self-piercing rivet operably driven by the punch as controlled by the electrical control unit; and

(f) a die operably diverging an end of the rivet without the rivet piercing completely through the exterior surface of a die-side workpiece adjacent the die;

the electric control unit operably controlling energization of the electric motor and operably determining if an undesired riveting condition is present.

34. A control system comprising:
- (a) a programmable control unit;
 - (b) a riveting machine including an electric motor and a transmission operable to convert rotary motion of the electric motor to linear motion of a punch;
 - (c) a self piercing rivet operably set by the punch acting with a substantially relatively stationary die of the riveting machine when the control unit causes energization of the electric motor; and
 - (d) a feeder operable to transfer the rivet to the riveting machine.

48. A control system comprising:
- (a) a programmable controller;
 - (b) a riveting machine including an electric motor and a transmission, the transmission being operable to convert rotary motion of the electric motor to linear motor [sic, "motion"], a section of the electric motor being rotatable about an axis offset from a centerline coaxial with an elongated dimension of the punch;
 - (c) a rivet operably moved by the riveting machine when the controller causes energization of the electric motor;

- (d) a sensor operable to indicate a riveting force characteristic, the controller operably receiving a signal generated by the sensor;
- (e) an articulating robot, the riveting machine being attached to and positioned by the robot; and
- (f) a rivet feeder connected to the riveting machine, the controller operably controlling actuation of the rivet feeder.

- 50. A riveting electrical control system comprising:
 - (a) an electrical control unit;
 - (b) an electric motor connected to the electrical control unit;
 - (c) a mechanical transmission operably converting rotational movement of the electric motor to substantially linear movement; and
 - (d) a rivet setting punch operably advanced by the transmission;
 - (e) the electrical control unit operably determining if a riveted joint [sic, add "characteristic"] is within a desired range.

0275M-000260/dvb